# Engineering Interpretations

### **Building Site Development**

Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, post construction performance, and maintenance. Soil limitation ratings of slight, moderate, and severe are given for shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns, landscaping, and golf fairways.

#### Shallow Excavations

Shallow excavations are trenches or holes dug in the soil to a maximum depth of 5 or 6 feet. They are used for pipelines, sewer lines, telephone and power transmission lines, basements, open ditches, and cemeteries. The ratings are based on the soil properties that influence ease of digging and resistance to sloughing.

## **Dwellings With or Without Basements**

These are single-family houses of three stories or less. The foundation is assumed to be spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or the depth of maximum frost penetration, whichever is deeper, for houses without basements, or at a depth of 7 feet if a basement is constructed. The ratings are based on properties affecting soil strength and settlement under a load, and those that affect excavation and construction costs.

## Small Commercial Buildings

Limitation ratings are given for the undisturbed soil on which small commercial buildings of less than three stories without basements are built. The foundation is assumed to be placed on spread footings of reinforced concrete at a depth of 2 feet or the depth of maximum frost penetration, whichever is deeper.

### Local Roads and Streets

Limitation ratings are given for the use of soils for construction of improved local roads and streets that have all-weather surfacing, commonly of asphalt, gravel with binder in it, or concrete, and that are expected to carry automobile traffic all year. These roads and streets are graded to shed water, and conventional drainage measures are provided. With the probable exception of the hard surface, roads and streets are built mainly from the soil at hand.

# Lawns, Landscaping, and Golf Fairways

The soils are rated for their use in establishing and maintaining turf for lawns and golf fairways and ornamental trees and shrubs for residential type landscaping. The ratings are based on the use of soil material at the location with some land smoothing. Irrigation may or may not be needed and is not a criterion in rating. Traps, trees, roughs, and greens are not considered as part of the golf fairway. The properties considered are those listed that affect plant growth and trafficability after vegetation is established.

This subsection includes:

• (a) Building Site Development

#### Building Site Development

Map symbol and soil name	Dwellings without base	ements	Dwellings with basem	ments	Small commercial buil	dings	Local roads and str	eets	Lawns and landsca	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10A: Hartwell	~wetness (very limited)	1.00	Very limited  ~wetness (very limited) ~shrink-swell (limited)	1.00	  Limited  ~wetness   (limited)  ~shrink-swell   (moderately limited)	      0.99    0.45	  Very limited  ~low strength  (very limited)  ~wetness  (limited)  ~shrink-swell  (moderately limited)	    1.00    0.99    0.45	Limited  ~wetness   (limited)	0.99
10B2: Hartwell	  Very limited  ~shrink-swell  (very limited)  ~wetness  (very limited)	    1.00    1.00	Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	    1.00    0.99 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	    1.00    1.00    0.99	  Limited  ~wetness   (limited) 	0.99
11: Hartwell	  Very limited  ~shrink-swell  (very limited)  ~wetness  (very limited)	    1.00    1.00	Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.99 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    1.00    0.99	Limited  ~wetness   (limited)	0.99
12: Haig	  - Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.99 	  very limited  wetness   (very limited)  shrink-swell   (very limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.60 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    1.00    0.60	Limited  ~wetness   (limited)	0.60

#### Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem   	ents	  Small commercial buil 	dings	   Local roads and str 	eets	   Lawns and landscaj 	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
15B: Bluelick	  Moderately limited  ~shrink-swell   (moderately limited)	    0.45   	  Moderately limited  ~shrink-swell   (moderately limited) 	      0.45   	   Moderately limited  ~shrink-swell   (moderately limited)  ~slope   (slightly limited)	0.45	  Very limited  ~low strength  (very limited)  ~shrink-swell  (moderately limited)	1.00	  Not limited 	
15C: Bluelick	   Moderately limited  ~shrink-swell   (moderately limited)  ~slope   (slightly limited)	  0.45    0.15	   Moderately limited   ~shrink-swell   (moderately limited)   ~slope   (slightly limited)	  0.45    0.15	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	0.83	  Very limited  ~low strength  (very limited)  ~shrink-swell  (moderately limited)	  1.00    0.45	  Not limited   	
15D2: Bluelick	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	  0.83    0.45	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	  0.83    0.45 	  Very limited  ~slope   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45 	  Very limited  ~low strength   (very limited)  ~slope   (limited)  ~shrink-swell   (moderately limited)	  1.00    0.84    0.45	  Limited  ~slope   (limited) 	0.84
17B: Pembroke	  Moderately limited  ~shrink-swell   (moderately limited)	      0.45   	  Moderately limited  ~shrink-swell   (moderately limited)	      0.43   	  Moderately limited  ~shrink-swell   (moderately limited)  ~slope   (slightly limited)	    0.45    0.15	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	    1.00    0.45	  Not limited     	
17C: Pembroke	   Moderately limited   ~shrink-swell   (moderately limited)   ~slope   (slightly limited)	  0.45    0.15	Moderately limited ~shrink-swell (moderately limited) ~slope (slightly limited)		  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	0.83	  Very limited  ~low strength  (very limited)  ~shrink-swell  (moderately limited)	  1.00    0.45	  Not limited     	

#### Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem   	ents	  Small commercial buil 	dings	   Local roads and str 	eets	   Lawns and landscap 	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value
17D: Pembroke	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	0.83	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	0.83	  Very limited  ~slope   (very limited)  ~shrink-swell   (moderately limited)	    1.00    0.45	  Very limited  ~low strength  (very limited)  ~slope  (limited)  ~shrink-swell  (moderately limited)	 	Limited  ~slope   (limited)	0.84
20B: Pershing	  Very limited  ~shrink-swell   (very limited)  ~wetness   (slightly limited)	  1.00    0.29	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.95	  Very limited  ~shrink-swell   (very limited)  ~slope   (slightly limited)	  1.00    0.15	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00	  Not limited   	
20B2: Pershing	   Very limited   ~shrink-swell   (very limited)   ~wetness   (slightly limited)	  1.00    0.29	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~slope   (slightly limited)	1.00	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	1.00	  Not limited 	
20C2: Pershing	Very limited   ~shrink-swell   (very limited)   ~wetness   (slightly limited)   ~slope   (slightly limited)	  1.00    0.29    0.15	Very limited  -shrink-swell  (very limited)  -wetness  (limited)  -slope  (slightly limited)	  1.00    0.95    0.15	  Very limited  ~shrink-swell  (very limited)  ~slope  (limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)	1.00	  Not limited 	
21B2: Pershing	  Very limited  ~shrink-swell   (very limited)  ~wetness   (slightly limited)	      1.00    0.29	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	      1.00    0.95	  Very limited  ~shrink-swell   (very limited)  ~slope   (slightly limited)	    1.00    0.15	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	      1.00    1.00	  Not limited   	

#### Building Site Development

Map symbol and soil name		ements	   Dwellings with basem 	ents	  Small commercial buil	ldings	Local roads and sti	reets	Lawns and landscap	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23B: Macksburg	  Very limited  ~shrink-swell   (very limited)  ~wetness   (slightly limited)	1.00	  Very limited  ~shrink-swell   (very limited)  -wetness   (limited)	    1.00    0.95	  Very limited  ~shrink-swell  (very limited)  ~slope  (slightly limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)	1.00	  Not limited 	
24B2: Arispe	1 -	    1.00    0.29	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	    1.00    0.95	  Very limited  ~shrink-swell   (very limited)  ~slope   (slightly limited)	1.00	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	1.00	  Not limited   	
24C2: Arispe	   Very limited   ~shrink-swell   (very limited)   ~wetness   (slightly limited)   ~slope   (slightly limited)	  1.00    0.29    0.15	Very limited  -shrink-swell (very limited)  -wetness (limited)  -slope (slightly limited)	  1.00    0.95    0.15	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)	1.00	  Not limited 	
28B: Greenton	  Very limited  ~shrink-swell   (very limited)  ~wetness   (moderately limited)	1.00	Very limited -shrink-swell (very limited) -wetness (very limited)	1.00	Very limited   ~shrink-swell   (very limited)   ~wetness   (slightly limited)   ~slope   (slightly limited)	1.00	Very limited   ~low strength   (very limited)   ~shrink-swell   (very limited)   ~wetness   (slightly limited)	1.00	  Slightly limited  ~wetness   (slightly limited) 	0.28

#### Building Site Development

Map symbol and soil name	Dwellings without bas	ements	Dwellings with basem	nents	Small commercial buil 	ldings	Local roads and str	reets	Lawns and landscap	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
28B2: Greenton	  Very limited  ~shrink-swell   (very limited)  ~wetness   (moderately limited)	    1.00    0.59	  Very limited  ~shrink-swell  (very limited)  ~wetness  (very limited)	1.00	  Very limited  ~shrink-swell  (very limited)  ~wetness  (slightly limited)  ~slope  (slightly limited)	1.00	Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (slightly limited)	1.00	Slightly limited  ~wetness   (slightly limited)	0.28
28C2: Greenton	  Very limited  ~shrink-swell   (very limited)  ~wetness   (moderately limited)  ~slope   (slightly limited)	  1.00    0.59    0.15	  Very limited  ~shrink-swell   (very limited)  ~wetness   (very limited)  ~slope   (slightly limited)	  1.00    1.00    0.15	  very limited  ~shrink-swell  (very limited)  ~slope  (limited)  ~wetness  (slightly limited)	11.00	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  -wetness   (slightly limited)	  1.00    1.00    0.28	  Slightly limited  ~wetness   (slightly limited)	0.28
28C3: Greenton	Very limited   ~shrink-swell   (very limited)   ~wetness   (moderately limited)   ~slope   (slightly limited)	  1.00    0.59    0.15	Very limited	1.00	Very limited   -shrink-swell   (very limited)   -slope   (limited)   -wetness   (slightly limited)	1.00	Very limited	  1.00    1.00    0.28	  Moderately limited  ~too clayey   (moderately limited)  ~wetness   (slightly limited)	0.60
28D2: Greenton	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)  ~wetness   (moderately limited)	    1.00    0.76    0.59	  Very limited  ~shrink-swell  (very limited)  ~wetness  (very limited)  ~slope  (limited)	  1.00    1.00    0.76	  Very limited  ~slope   (very limited)  ~shrink-swell   (very limited)  ~wetness   (slightly limited)	1.00	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~slope  (limited)	  1.00    1.00    0.63	Limited  ~slope   (limited)  ~too clayey   (moderately limited)  ~wetness   (slightly limited)	  0.63    0.60    0.28

#### Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem   	ents	  Small commercial buil   	dings			   Lawns and landscap 	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
31: Otter	<pre> ~ponded   (very limited)  ~flooding   (very limited)  ~wetness</pre>	1.00	   Very limited   ~ponded   (very limited)   ~flooding   (very limited)   ~wetness	1.00	  very limited  ~ponded (wetness)   (very limited)  ~flooding   (very limited)  ~wetness	  1.00  1.00  1.00  0.81	(very limited)  ~low strength	  1.00  1.00  1.00	(very limited)	1.00   1.00   1.00   0.81
32: Tanglenook	~flooding (very limited)	1.00	(very limited)	1.00	(limited)	    1.00    1.00    1.00	(very limited)		<pre>(limited)    Very limited  ~wetness   (very limited)  ~flooding   (moderately limited)  </pre>	    1.00    0.60
33: Dockery	~flooding (very limited)	  0.45    0.45	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	1.00    1.00    0.45	  Very limited  ~flooding   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45 	(very limited)	  1.00    1.00    0.45	  Very limited  ~flooding   (very limited)	1.00
34: Arbela		1.00	  Very limited  ~flooding  (very limited)  ~wetness  (very limited)  ~shrink-swell  (slightly limited)	  1.00    1.00    0.10	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)	  1.00    1.00 	<pre>(very limited)  ~wetness (very limited)</pre>	ĺ	  Very limited  ~wetness   (very limited)  ~flooding   (moderately limited)	  1.00    0.60 

#### Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem 	ents	  Small commercial build	dings	Local roads and str	eets	   Lawns and landscap 	oing
	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value
38: Zook	  Very limited  ~flooding  (very limited)  ~shrink-swell  (very limited)  ~wetness  (limited)	      1.00    1.00    0.99	   Very limited   ~flooding   (very limited)   ~shrink-swell   (very limited)   ~wetness   (very limited)	    1.00    1.00    1.00	  Very limited  ~flooding   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	      1.00    1.00    0.60	   Very limited   ~low strength   (very limited)   ~flooding   (very limited)   ~shrink-swell   (very limited)	      1.00    1.00    1.00	Very limited  ~flooding (very limited)  ~wetness (limited)  ~too clayey   (moderately limited)	    1.00    0.60    0.60
40: Lamine	Very limited   ~flooding   (very limited)   ~shrink-swell   (very limited)   ~wetness   (limited)	  1.00    1.00    0.79	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (very limited)	  1.00  1.00    1.00	  Very limited  ~flooding   (very limited)  ~shrink-swell   (very limited)  ~wetness   (moderately limited)	  1.00    1.00    0.45	  Very limited  ~low strength   (very limited)  ~flooding   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00    1.00	  Moderately limited  ~flooding   (moderately limited)  ~wetness   (moderately limited)	  0.60    0.45 
42: Dameron	  Very limited  ~flooding   (very limited)	    1.00   	  Very limited  ~flooding   (very limited) 	    1.00     	  Very limited  ~flooding   (very limited) 	    1.00     	  Very limited  ~flooding   (very limited)  ~low strength   (very limited)	  1.00    1.00 	  Very limited  ~flooding   (very limited) 	  1.00     
43: Nevin	<pre> ~flooding   (very limited)  ~wetness   (limited)</pre>	  1.00    0.99    0.45	  Very limited  ~flooding   (very limited)  ~wetness   (very limited)  ~shrink-swell   (moderately limited)	  1.00    1.00    0.45	  Very limited  ~flooding   (very limited)  ~wetness   (limited)  ~shrink-swell   (moderately limited)	    1.00    0.60    0.45	  Very limited  ~low strength   (very limited)  ~flooding   (very limited)  ~wetness   (limited)	  1.00    1.00    0.60	  Limited  ~wetness   (limited)  ~flooding   (moderately limited)	  0.60    0.60 

#### Building Site Development

Map symbol and soil name	  Dwellings without base 	ements	   Dwellings with basem   	ents	  Small commercial buil   	dings	s   Local roads and streets		   Lawns and landscap 	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
46: Cotter	  Very limited  ~flooding   (very limited)  ~shrink-swell   (moderately limited)	    1.00    0.45	  Very limited  ~flooding   (very limited)  ~shrink-swell   (slightly limited)	    1.00    0.07	  Very limited  ~flooding   (very limited)  ~shrink-swell   (moderately limited)	    1.00    0.45	  Very limited  ~low strength   (very limited)  ~flooding   (very limited)  ~shrink-swell   (moderately limited)	  1.00    1.00    0.45	  Moderately limited  ~flooding   (moderately limited)	    0.60     
53B: Friendly	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.99 	  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)		  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.60 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    1.00    0.60	  Limited  ~wetness   (limited)	    0.60       
53B2: Friendly	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.99 	  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00 	  Very limited  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    0.60 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	  1.00    1.00    0.60	  Limited  ~wetness   (limited) 	    0.60     
54B: Paintbrush	Moderately limited   ~wetness   (moderately limited)   ~shrink-swell   (moderately limited)	0.51    0.45	  Very limited  ~wetness   (very limited)  ~shrink-swell   (moderately limited) 		   Moderately limited   ~shrink-swell   (moderately limited)   ~slope   (slightly limited)   ~wetness   (slightly limited)	  0.45    0.15    0.13	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)  ~wetness   (slightly limited)	  1.00    0.45    0.13	  Very limited  ~large stones >30%   (very limited)  ~small stones   (moderately limited)  ~wetness   (slightly limited)	  1.00    0.50    0.13

#### Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	Dwellings with basem	ents	  Small commercial build	dings	Local roads and str	eets	   Lawns and landscap 	ping
	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value
54B2: Paintbrush	   Moderately limited   ~wetness   (moderately limited)   ~shrink-swell   (moderately limited)	0.45	   Very limited   ~wetness   (very limited)   ~shrink-swell   (moderately limited)	      1.00    0.45   	   Moderately limited  ~shrink-swell   (moderately limited)  ~slope   (slightly limited)  ~wetness   (slightly limited)	        0.45    0.15    0.13	  Very limited  ~low strength  (very limited)  ~shrink-swell  (moderately limited)  ~wetness  (slightly limited)	      1.00    0.45    0.13	  Slightly limited  ~wetness   (slightly limited)  ~droughty   (slightly limited)	0.13
54C: Paintbrush	  Moderately limited    ~wetness   (moderately limited)    ~shrink-swell   (moderately limited)    ~slope   (slightly limited)	0.45	Very limited  ~wetness   (very limited)  ~shrink-swell   (moderately limited)  ~slope   (slightly limited)	  1.00    0.45    0.15	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)  ~wetness   (slightly limited)	  0.83    0.45    0.13	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)  ~wetness   (slightly limited)	  1.00    0.45    0.13	  Slightly limited  ~droughty   (slightly limited)  ~wetness   (slightly limited)	0.16
55B: Bahner	  Moderately limited  ~shrink-swell   (moderately limited) 	    0.45     	  Moderately limited  ~shrink-swell  (moderately limited)  ~wetness   (slightly limited)	  0.45    0.24	(moderately limited)	  0.45    0.15 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45	  Not limited     	
55C: Bahner	(moderately limited)	0.45	Moderately limited ~shrink-swell (moderately limited) ~wetness (slightly limited) ~slope (slightly limited)	0.45	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	0.83	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45	  Not limited 	

#### Building Site Development

Map symbol and soil name	Dwellings without bas	ements	Dwellings with basem   	ents	Small commercial buil 	dings	Local roads and str	eets	Lawns and landscap	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
58B2: Sedalia	  Very limited  ~shrink-swell   (very limited)  ~wetness   (moderately limited)		  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	1.00	  Very limited  ~shrink-swell   (very limited)  ~slope   (slightly limited)  ~wetness   (slightly limited)	İ	Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (slightly limited)	    1.00    1.00    0.13	Slightly limited  ~wetness   (slightly limited)	0.13
58C2: Sedalia	   Very limited   ~shrink-swell   (very limited)   ~wetness   (moderately limited)   ~slope   (slightly limited)		  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)  ~slope   (slightly limited)	  1.00    1.00    0.15	  Very limited  ~shrink-swell   (very limited)  ~slope   (limited)  ~wetness   (slightly limited)	İ	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (slightly limited)	  1.00    1.00    0.13	Slightly limited  ~wetness   (slightly limited)	0.13
62B2: Maplewood	  Very limited  ~shrink-swell  (very limited)  ~wetness  (very limited)	  1.00    1.00 	  Very limited  ~wetness   (very limited)  ~shrink-swell   (very limited)	  1.00    1.00   	(very limited)	  1.00    0.68    0.15	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (limited)	  1.00    1.00    0.68	  Limited  ~droughty   (limited)  ~wetness   (limited)	0.86
75C: Barco	  - Moderately limited  ~shrink-swell   (moderately limited)  ~slope   (slightly limited)	0.45	  Limited  ~depth to bedrock  (limited)  ~soft bedrock <40"  (limited)  ~shrink-swell  (moderately limited)	  0.79    0.71    0.45	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	  0.83    0.45 	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45   	  Moderately limited  ~depth to bedrock   (moderately limited) 	0.46

#### Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	Dwellings with basem	ents	  Small commercial buil 	dings	Local roads and str	eets	Lawns and landscap.	ing
	Rating class and limiting features	Value 	Rating class and limiting features	Value   	Rating class and limiting features	Value	Rating class and limiting features	Value   	Rating class and limiting features	Value
75D: Barco	  Limited  ~slope  (limited)  ~shrink-swell  (moderately limited)	0.76        0.45   	Limited  -soft bedrock <40"   (limited)  -slope   (limited)  -depth to bedrock   (limited)	        0.79    0.76    0.60	  Very limited  ~slope   (very limited)  ~shrink-swell   (moderately limited)	      1.00    0.45   	  Very limited  ~low strength  (very limited)  ~slope  (limited)  ~shrink-swell  (moderately limited)	          0.63    0.45	  Limited  ~slope   (limited)  ~depth to bedrock   (moderately limited)	0.63
75F: Barco	1 1 2	1.00    0.45	  Very limited  ~slope   (very limited)  ~depth to bedrock   (limited)  ~soft bedrock <40"   (limited)	  1.00    0.79    0.79	  Very limited  ~slope   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45 	  Very limited  ~slope   (very limited)  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	  1.00    1.00    0.45	  Very limited  ~slope   (very limited)  ~depth to bedrock   (moderately limited)	    1.00    0.53 
77B: Wakenda	  Moderately limited  ~shrink-swell   (moderately limited)	  0.45   	   Moderately limited   ~shrink-swell   (moderately limited)   ~wetness   (slightly limited)	  0.43    0.15	  Moderately limited  ~shrink-swell  (moderately limited)  ~slope  (slightly limited)	  0.45    0.15	  Very limited  ~low strength  (very limited)  ~shrink-swell  (moderately limited)	  1.00    0.45	  Not limited     	
77C: Wakenda	(moderately limited)	  0.45    0.15 	Moderately limited  -shrink-swell (moderately limited)  -slope (slightly limited)  -wetness (slightly limited)	  0.41    0.15    0.15	  Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	0.83	  Very limited  ~low strength  (very limited)  ~shrink-swell  (moderately limited)	  1.00  0.45 	  Not limited       	

#### Building Site Development

Map symbol and soil name	  Dwellings without base   	ements	Dwellings with basem	ents	  Small commercial buil 	dings	Local roads and str	eets	   Lawns and landscap 	oing
	Rating class and limiting features	Value 	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value   	Rating class and limiting features	Value
81C: Eldon	   Moderately limited  ~shrink-swell   (moderately limited)	    0.45   	   Moderately limited  ~shrink-swell   (moderately limited)		Limited  -slope   (limited)  -shrink-swell   (moderately limited)	    0.68    0.45	   Moderately limited  ~shrink-swell   (moderately limited)	      0.45   	Limited  ~small stones (limited)	0.64
81D: Eldon	~slope   (limited)	  0.76    0.45   	Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	  0.45	Very limited  ~slope   (very limited)  ~shrink-swell   (moderately limited)	  1.00    0.45   	Limited  ~slope   (limited)  ~shrink-swell   (moderately limited)	  0.63    0.45   	Limited  ~small stones   (limited)  ~slope   (limited)  ~droughty   (moderately limited)	0.64
83D: Moko	<pre>(very limited)  ~large stones (very limited)</pre>	1.00    1.00    0.60	Not Rated  Not Rated  -hard bedrock <40"   (very limited)  -large stones   (very limited)	      1.00    1.00	  Very limited  ~hard bedrock <20"   (very limited)  ~large stones   (very limited)  ~slope   (very limited)	  1.00    1.00    1.00	  Very limited  ~hard bedrock <20"   (very limited)  ~large stones   (very limited)  ~slope   (slightly limited)	    1.00    1.00    0.16	(very limited)	  1.00    1.00    1.00
83F: Moko	   Very limited   ~hard bedrock <20"   (very limited)   ~slope   (very limited)   ~large stones   (very limited)		   Very limited   ~hard bedrock <40"   (very limited)   ~slope   (very limited)   ~large stones   (very limited)	  1.00 	   Very limited   ~hard bedrock <20"   (very limited)   ~slope   (very limited)   ~large stones   (very limited)	  1.00    1.00    1.00	  Very limited  ~hard bedrock <20"   (very limited)  ~slope   (very limited)  ~large stones   (very limited)	  1.00    1.00    1.00	(very limited)	  1.00    1.00    1.00

### Building Site Development

Map symbol and soil name	  Dwellings without basements 		Dwellings with basements		  Small commercial buildings 		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
85F: Goss	~slope   (very limited)	    1.00    1.00 	   Very limited   ~slope   (very limited)   ~large stones   (very limited)   ~shrink-swell	1.00	  Very limited  ~slope   (very limited)  ~large stones   (very limited)	1.00	(very limited)	j	(very limited)  ~large stones >30%   (very limited)	    1.00    1.00    0.49
99: Pits	(moderately limited)	1	~snrink-swell   (slightly limited)      Not rated	0.23	~shrink-swell   (moderately limited)        Not rated	0.45         	~low strength   (limited)      Not rated	0.78	~droughty   (moderately limited)      Not rated 	1
M-W: Water	  Not rated 		  Not rated 		    Not rated   		  Not rated 		  Not rated 	
W: Water	Not rated 	         	  Not rated     		  Not rated       		  Not rated   		  Not rated    -  -	